

# PLC-OSP- 12DC/300DC/ 1 - Solid-state relay module



2980827

<https://www.phoenixcontact.com/us/products/2980827>

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PLC-INTERFACE, integrated solid-state relay, with spring-cage connection, for mounting on NS 35/7,5 DIN rails, input: 12 V DC, output: 12 - 300 V DC/1 A

The figure shows the version PLC-OSC-24DC/300DC/1

## Your advantages

- Wear-free switching with no contact bounce
- Resistant to vibrations and shocks
- Protective circuit in input and output
- Status indicator
- DC voltage outputs up to 300 V DC/1 A
- Option of bridging adjacent modules

## Commercial data

Item number	2980827
Packing unit	1 pc
Note	Made to order (non-returnable)
Sales key	C461
Product key	DK6223
GTIN	4046356051552
Weight per piece (including packing)	31.39 g
Weight per piece (excluding packing)	31.39 g
Customs tariff number	85364190
Country of origin	DE

## Technical data

### Notes

#### Utilization restriction

EMC note	EMC: class A product, see manufacturer's declaration in the download area
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### Product properties

Product type	Solid-state relay module
Product family	PLC-INTERFACE
Application	With integrated solid-state relay
Operating mode	100% operating factor

#### Insulation characteristics: Standards/regulations

Insulation	Basic insulation
Overvoltage category	III
Pollution degree	2

#### Data management status

Date of last data management	01.04.2026
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### Electrical properties

#### Standards/regulations

Rated insulation voltage	300 V
Rated surge voltage	2.5 kV

### Input data

Nominal input voltage $U_N$	12 V DC
Input voltage range in reference to $U_N$	0.8 ... 1.2
Input voltage range	9.6 V DC ... 14.4 V DC
Switching threshold "0" signal in reference to $U_N$	$\leq 0.4$
Switching threshold "1" signal in reference to $U_N$	$\geq 0.8$
Typical input current at $U_N$	6 mA
Typical response time	0.3 ms
Typical turn-off time	0.8 ms
Operating voltage display	Yellow LED
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection; Varistor
Transmission frequency	50 Hz

### Output data

Designation	Output data
Contact switching type	1 N/O contact
Design of digital output	electronic

Output voltage range	12 V DC ... 300 V DC (Partition plate PLC-ATP must be installed for voltages larger than 250 V (L1, L2, L3) between identical terminal points in adjacent modules. Potential bridging is then carried out with FBST 8-PLC... or ...FBST 500...)
Limiting continuous current	1 A (see derating curve)
Voltage drop at max. limiting continuous current	< 500 mV
Protective circuit	Reverse polarity protection; Polarity protection diode Surge protection; Varistor

## Connection data

### Input side

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 14

### Output side

Connection method	Spring-cage connection
Stripping length	8 mm
Conductor cross-section rigid	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section flexible	0.14 mm <sup>2</sup> ... 2.5 mm <sup>2</sup>
Conductor cross-section AWG	26 ... 14

## Dimensions

Width	6.2 mm
Height	80 mm
Depth	86 mm

## Material specifications

Color	green (RAL 6021)
Flammability rating according to UL 94 (Housing)	V0 (Housing)

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-25 °C ... 60 °C
Ambient temperature (storage/transport)	-40 °C ... 85 °C

## Standards and regulations

### Standards/regulations

Standards/regulations	IEC 60664
	EN 50178

## Mounting

Assembly note	in rows with zero spacing
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Mounting position	any
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Drawings

Diagram



① Input voltages 220 V DC/230 V AC

The figure shows the derating curve for PLC-...300DC/1

Circuit diagram



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## Environmental product compliance

### China RoHS

Environment friendly use period (EFUP)	EFUP-50
	An article-related China RoHS declaration table can be found in the download area for the respective article under "Manufacturer declaration". For all articles with EFUP-E, no China RoHS declaration table issued and required.

### EU REACH SVHC

REACH candidate substance (CAS No.)	No substance above 0.1 wt%
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